

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF OKLAHOMA**

UNITED STATES OF AMERICA,

Plaintiff,

V.

**LAND O'LAKES, INC. and
CUSHING, OKLAHOMA
BROWNFIELDS, LLC,**

Defendants.

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Case No. 5:16-cv-00170-PRW

JUDGE PATRICK R. WYRICK

**UNITED STATES' CONSOLIDATED OPPOSITION TO
DEFENDANTS' MOTIONS TO EXCLUDE EXPERT OPINIONS OF
ROBERT COHEN, DR. JAMES KITTRELL, AND THOMAS DAHL¹**

¹ This brief responds to the Defendants’ Motions to Exclude Certain Opinions of: Robert Cohen (Dkt. 131) (“Def. Cohen Mot.”), Dr. James Kittrell (Dkt. 132) (“Def. Kittrell Mot.”), and Thomas Dahl (Dkt. 133) (“Def. Dahl Mot.”).

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I. INTRODUCTION

The Defendants’ three “*Daubert*” motions are about the merits of this case, not scientific reliability.² The Defendants push this Court to throw out Mr. Cohen’s, Dr. Kittrell’s, and Mr. Dahl’s opinions, not because they are “unreliable,” but because they challenge the Defendants’ incorrect view of the law and preferred subset of facts.³ Their motions are an end-run around this Court’s limit on summary judgment motions – they ask this Court to issue legal conclusions and findings of fact bearing directly on the Defendants’ liability under CERCLA. *See* LCvR 56.1(a).⁴ That is not what a *Daubert* motion is for.

Rather than work within CERCLA’s actual parameters, the Defendants set up a series of strawman arguments to manufacture a *Daubert* challenge to the United States’ experts. The Defendants first misrepresent the United States’ burden of proof in this CERCLA⁵ case, ignoring directly applicable Tenth Circuit precedent: *Tosco Corp. v. Koch Indus.*, 216 F.3d 886, 891 (10th Cir. 2000). Contrary to what the Defendants

² *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993).

³ Mr. Cohen and Dr. Kittrell are two of the United States’ primary experts in this case, and Mr. Dahl is a rebuttal expert. Mr. Dahl’s report is approximately 30 pages long. *See* Ex. 1 to Def. Dahl Mot. (Dkt. 133-1), Oct. 30, 2019 Expert Rebuttal Report of Thomas Dahl (“Dahl Rebuttal Report”). The Defendants seek to exclude his rebuttal to Fortuna Opinion 6, Saba Opinion 1-2, and Lane Opinions 3, 5, and “Supporting Opinion and Conclusions,” which collectively amount to about two pages of his report.

⁴ The Defendants filed a single motion for summary judgment that addresses one issue – statute of limitations. *See* Def. Mot. for Summ. J. (Dkt. 127).

⁵ The Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 *et seq.*

suggest to the Court, the United States’ experts do not need to causally connect Midland’s disposals of hazardous wastes to specific cleanup costs at the Hudson Refinery Superfund Site (the “Refinery” or “Site”). *See id.* Mr. Cohen’s and Dr. Kittrell’s opinions are not flawed or unreliable because they did not do what is not required.⁶

Next, the Defendants misconstrue the subject matter that Mr. Cohen and Dr. Kittrell were retained to analyze. Mr. Cohen and Dr. Kittrell were retained to analyze different aspects of the wastes Midland disposed of at the Site and the resulting contamination – what Midland disposed of at the Site and what happened to it over time. The United States is offering other fact witnesses and has retained other experts – who prepared reports and the Defendants deposed – to handle cost issues.

Dr. Kittrell’s and Mr. Cohen’s *actual* opinions meet *Daubert*’s standard of reliability. Their basic approach is similar to how the Defendants’ experts reached their own conclusions about Midland’s waste disposal practices and their impact on CERCLA’s petroleum exclusion. Mr. Cohen and Dr. Kittrell both reviewed extensive environmental sampling data and historical information about the Refinery’s operations to derive the factual foundation for their distinct opinions. *See, e.g.*, Ex. 1 to Def. Cohen Mot. (Dkt. 131-1), Mar. 1, 2019 Expert Report of Robert Cohen (“Cohen Report”) at ¶ 93, Tables 3, 9, and 10, and Figure 2; Ex. 1 to Def. Kittrell Mot. (Dkt. 132-1), Mar. 1,

⁶ The Court is required to examine the admissibility of the opinions Mr. Cohen and Dr. Kittrell will *actually* render, not those opinions the Defendants believe should have been offered. *See, e.g., Smithwick v. BNSF Ry. Co.*, 447 F. Supp. 3d 1239, 1244–45 (W.D. Okla. 2020) (denying motion to exclude expert testimony based on the argument that the expert failed to perform certain calculations, reasoning that the claimed omission failed to undermine the expert opinions or reflect a defect in the underlying methodology).

2019 Expert Report of James R. Kittrell, Ph.D. (“Kittrell Report”) at 43-62 (using sampling data and scientific research to analyze the source of lead contamination at the Site). Mr. Cohen then applied his expertise as a hydrogeologist to analyze that factual information and draw conclusions about how contamination was spread at the Refinery. *See* Cohen Report (Dkt. 131-1) at ¶ 95-96 (discussing physical processes that transported contaminants at Site). Dr. Kittrell used his expertise in refinery operations and waste generation to connect the contamination at the Site to Midland’s operations. *See, e.g.,* Kittrell Report (Dkt. 132-1) at 89-95. Dr. Kittrell’s and Mr. Cohen’s opinions are also consistent with the RCRA⁷ and CERCLA laws, which the Defendants’ own RCRA expert largely concedes.

Where the Defendants nominally raise *Daubert* questions about scientific reliability, they raise quintessential examples of challenges that go, if anything, to the “weight and sufficiency” of the bases for Dr. Kittrell’s and Mr. Cohen’s opinions, rather than their admissibility. *See Valley View Angus Ranch v. Duke Energy Field Servs., LP*, No. CIV-04-191-D, 2008 WL 2329169, at *3 (W.D. Okla. June 4, 2008) (explaining that “the burden is on opposing counsel through cross-examination to explore and expose any weaknesses in the underpinnings of the expert’s opinion [citation omitted]”). For example, the Defendants raise issues about the level and quality of documentation Mr. Cohen and Dr. Kittrell relied upon in their reports, and about which documents or portions of witness testimony the Defendants feel they should have emphasized to a greater or lesser degree. *See* Def. Cohen Mot. at 11-12 (complaining that Cohen “cites to

⁷ The Resource Conservation and Recovery Act, 42 U.S.C. § 6901 *et seq.*

the testimony of some, not all, of [sic] refinery workers”) and Def. Kittrell Mot. at 16-17 (complaining that Dr. Kittrell’s opinions are based on a “selective review of refinery documents and testimony”).

These are all issues that “should be challenged by cross-examination and presentation of contrary evidence at trial rather than excluded.” *See Blocker v. ConocoPhillips Co.*, No. CIV-17-248-G, 2019 WL 9698525, at *3 (W.D. Okla. May 14, 2019) (slip copy) (denying motion to exclude). A *Daubert* motion is not the place for this Court to weigh the credibility and persuasiveness of evidence, such as the deposition testimony of aging fact witnesses or decades-old documents. These are matters for the Court to decide after it is able to view and consider all of the evidence presented at trial; not in a *Daubert* motion where the Defendants cherry-pick snippets of testimony they view as favorable to their case.

For all these reasons, the Defendants’ motions should be denied.

II. STANDARD FOR ADMITTING EXPERT TESTIMONY

The United States, in general, does not challenge the Defendants’ basic explanation about the two-part inquiry courts in the Tenth Circuit use to review expert evidence under *Daubert* and Fed. R. Evid. 702. *See, e.g., Bitler v. A.O. Smith Corp.*, 400 F.3d 1227, 1232 (10th Cir. 2005). This is a bench trial, however. So, “while *Daubert*’s standards must still be met, the usual concerns regarding unreliable expert testimony reaching a jury obviously do not arise.” *Patel v. Patel*, No. CIV-17-881-D, 2019 WL 150547, at *2 (W.D. Okla. Jan. 4, 2019), *quoting Attorney Gen. of Okla v. Tyson Foods, Inc.*, 565 F.3d 769, 779 (10th Cir. 2009) (finding that it should hear expert opinions,

assess them with a full understanding of the trial evidence, and disregard them later if unreliable or otherwise improper for consideration). The Supreme Court’s overriding concern in *Daubert* and *Kumho Tire* was exposing a jury to confusing and unreliable expert testimony. See *Chickasaw Nation v. Dept. of the Interior*, No. CIV-05-1524-W, 2015 WL 11438610, at *1 (W.D. Okla. June 18, 2015) citing *Tyson Foods*, 565 F.3d at 779. That concern is not present in a non-jury case like this one, and the Court’s pre-trial “gatekeeping” obligation is not as essential since, here, the “gatekeeper” and the trier of fact are the same. See *id.*; see also *Tosco*, 216 F.3d at 896 (“in bench trials ‘questions raised relative to the admission or exclusion of evidence...become relatively unimportant,’ because the rules of evidence are ‘intended primarily for the purpose of withdrawing from the jury matter which might improperly sway the verdict’ [citation omitted]”).

Here, “[t]he trial court retains broad discretion in assessing an expert’s reliability and making its ultimate determination of reliability.” *Tyson Foods*, 565 F.3d at 779. And the admissibility of expert testimony should be evaluated within the context of the presumption of admissibility espoused by the Federal Rules of Evidence. See *Robinson v. Mo. Pac. R.R. Co.*, 16 F.3d 1083, 1090 (10th Cir. 1994) (quotation omitted); see also *Thompson v. APS of Okla., LLC*, No. CIV-16-1257-R, 2018 WL 4608505, at *10 (W.D. Okla. Sept. 25, 2018) (“rejection of expert testimony is the exception rather than the rule”). Consequently, any doubts as to the usefulness of the expert’s testimony should be resolved in favor of admissibility. See *id.*

Moreover, analyzing the reliability of an expert's opinions under *Daubert* is "not a determination as to whether the expert's proposed testimony is substantively correct." *APS of Okla., LLC*, 2018 WL 4608505, at *8 (quoting *Graves v. Mazda Motor Corp.*, 675 F. Supp. 2d 1082, 1093 (W.D. Okla. 2009), *aff'd*, 405 F. App'x 296 (10th Cir. 2010)). The Defendants clearly disagree with the United States' claims and expert opinions they want to exclude. But the Defendants' *Daubert* motions are not the right vehicle for trying the merits of this case. *See id.* at *4 (emphasizing that the plaintiffs need only show the Court that their expert's opinions are reliable, not that they are substantively correct).

III. LEGAL BACKGROUND ON CERCLA

The Defendants ostensibly challenge the scientific reliability of Dr. Kittrell's and Mr. Cohen's opinions about Midland's hazardous waste disposals and why CERCLA's petroleum exclusion does not apply here. *See* Def. Cohen Mot. at 6-8; Def. Kittrell Mot. at 8-13. Much of the Defendants' "*Daubert*" arguments are about legal principles, however, not scientific ones. Moreover, the Defendants' arguments flow from a series of misrepresentations about how the CERCLA and RCRA statutes work. Because the Defendants disagree with well-established legal principles, they claim the United States' experts' opinions – that Midland generated and disposed of RCRA listed hazardous wastes – are "legally and factually inaccurate." *See, e.g.*, Def. Cohen Mot. at 8. But whether Mr. Cohen, Dr. Kittrell, or Mr. Dahl properly applied legal principles about, for example, the retroactive effect of RCRA listed hazardous wastes is not a *Daubert* question about scientific reliability. It is a conclusion of law for the Court to decide.

Because the Defendants raise these substantive legal arguments, the United States is compelled to respond and explain the settled law in the Tenth Circuit.

A. EPA's Response Authority under CERCLA

CERCLA was designed “to promote the ‘timely cleanup of hazardous waste sites.’” *Chevron Mining Co. v. United States*, 863 F.3d 1261, 1269 (10th Cir. 2017) quoting *Burlington N. & Santa Fe Ry. v. United States*, 556 U.S. 599, 602 (2009) (citation omitted). It is a remedial statute that empowers the EPA to respond to releases or threatened releases of hazardous substances. *See* 42 U.S.C. § 9604 (Response authorities). If the EPA finds a site where hazardous substances are being released into the environment or there is a threat of release, the EPA can act. *See id.* at 42 U.S.C. § 9604(a)(1). The EPA need not start its response action by uncovering and sifting through an oftentimes convoluted, multi-decade history of site activities. *See also* Dahl Rebuttal Report (Dkt. 133-1) at 14 (explaining that “waiting until all relevant information is known from which to conduct full cleanup can result in excessive delays, with attendant unnecessary ecological and human health risks during the wait”). The EPA need not first determine who is or is not liable to fund a cleanup. The EPA may act. The question of who will pay for the clean up – the taxpayer or someone else – arises later.

B. CERCLA's Standard of Strict, Joint and Several, and Retroactive Liability.

CERCLA was enacted to ensure that the costs of cleaning up hazardous wastes sites like the Refinery are ultimately “borne by those responsible for the contamination.” *Chevron Mining*, 863 F.3d at 1269 quoting *Burlington N. & Santa Fe Ry.*, 556 U.S. at 602. Congress chose to impose liability on persons associated with the site at issue.

To establish liability in a civil CERCLA “cost recovery” action like this case, the United States must establish that:

- The Site is a *facility* within the meaning of 42 U.S.C. § 9601(9)(B);
- A *release* (see 42 U.S.C. § 9601(22)) or threatened release of *hazardous substances* (see 42 U.S.C. § 9601(14)) occurred at the Site;
- As a result of the release or threatened release, the United States incurred *response costs* at the Site, (see 42 U.S.C. § 9607); and
- Each Defendant falls within one of the four classes of potentially responsible parties (“PRPs”) described in 42 U.S.C. § 9607(a). Relevant here:
 - The United States alleges that Land O’Lakes is an *owner or operator* (see 42 U.S.C. § 9601(20)) at the time of *disposal*⁸ pursuant to 42 U.S.C. § 9607(a)(2) and
 - The United States alleges that Cushing, Oklahoma Brownfields, LLC is a current *owner* (see 42 U.S.C. § 9601(20)) pursuant to 42 U.S.C. § 9607(a)(1).

See 42 U.S.C. § 9607(a); see also *Tosco*, 216 F.3d at 891; *United States v. Hardage*, 761 F. Supp. 1501, 1508 (W.D. Okl. 1990).

Liability under CERCLA is strict, joint and several, and retroactive. Thus, once liability is demonstrated under CERCLA Section 107, a single PRP may be held liable for the entire cost of cleanup, even if multiple PRPs are involved. See *United States v. Colo. & E. R.R.*, 50 F.3d 1530, 1535 (10th Cir. 1995). CERCLA liability also “does not depend upon any particular quantity of the hazardous substance.” See *Hardage*, 761 F. Supp. at 1511 (explaining that “[e]ven a *de minimis* contributor can be held liable”).

⁸ “Disposal” means “the discharge, deposit, injection, dumping, spilling, leaking, or placing of any...hazardous waste into or on any land or water so that such...hazardous

CERCLA liability may be inferred from the totality of the circumstances based on circumstantial evidence. Liability need not be proven by direct evidence. *See Chevron Mining*, 863 F.3d at 1271 citing *Tosco*, 216 F.3d at 892. Courts recognize that this standard of proof is particularly appropriate for cases, like this one, involving older hazardous substance disposals because “eyewitness testimony or other direct evidence concerning specific waste disposal practices ... during the 1940s—well before the enactment of environmental laws—is rarely available.” *Tosco*, 216 F.3d at 892.

1. CERCLA does not require “fingerprinting” of wastes.

CERCLA does not require any causal link between a responsible party’s *disposal* and the *response*. The Tenth Circuit instructs that proving “a specific causal link between [CERCLA] costs incurred and an individual responsible person’s waste” is not part of the United States’ burden of proof in establishing the Defendants’ liability. *See Tosco*, 216 F.3d at 891. Nor does CERCLA require a causal link between a responsible party’s *disposal* and the *release* EPA responds to. *See Hardage*, 761 F. Supp. at 1511 (explaining that “the United States need not demonstrate that the specific hazardous substances contributed to the Hardage Site by the defendants have been released from the Site”). Other courts, including the Western District of Oklahoma, agree that a “fingerprinting” requirement would “eviscerate the statute.” *See, e.g., United States v. Wade*, 577 F. Supp. 1326, 1332 (E.D. Pa. 1983); *see also Hardage*, 761 F. Supp. at 1511, *citing United States v. Wade*, 577 F.Supp. at 1333 (explaining that “[t]he United States

waste...may enter the environment.” *See* 42 U.S.C. § 9601(29) (incorporating 42 U.S.C. § 6903).

need only establish the release of ‘a’ hazardous substance from the Hardage Site and ‘not necessarily one contained in the defendant’s waste’’).

The Defendants ignore this binding precedent. They argue that Dr. Kittrell’s and Mr. Cohen’s expert opinions should be excluded because they did not undertake the same type of “fingerprinting” analysis the Tenth Circuit says is not necessary. *See, e.g.*, Def. Cohen Mot. at 1 (first sentence) and Def. Kittrell Mot. at 1 (first sentence). But the United States’ experts do not need to causally connect Midland’s disposals of hazardous wastes to specific cleanup costs at the Site. *See Tosco*, 216 F.3d at 891; *see also United States v. Bliss*, 667 F.Supp. 1298, 1310 (E.D. Mo. 1987) (“The United States need not trace the waste found at the site back to the wastes deposited by the generator”). Suggesting otherwise is not only contrary to Tenth Circuit law, it misrepresents the nature of Dr. Kittrell’s and Mr. Cohen’s opinions.⁹ *Cf.* Def. Cohen Mot. at 4 and Def. Kittrell Mot. at 5-6 (faulting Dr. Kittrell for offering “no opinion on the [removal action] costs”).

And even if CERCLA did require the United States to link Midland’s wastes to EPA response costs, the Defendants would still be on the wrong side of the facts. When Land O’Lakes wanted its insurance company to cover the cleanup costs for the Site, the expert *Land O’Lakes* retained unequivocally opined that:

The actions taken by regulators are consistent with the CERCLA objectives and process and the resulting costs of these actions ***are directly related to***

⁹ The Defendants distort the subject matter Mr. Cohen and Dr. Kittrell were retained to analyze. Mr. Cohen and Dr. Kittrell were not retained to opine about the response costs the United States incurred cleaning up the Hudson Refinery Superfund Site. Mr. Cohen and Dr. Kittrell were retained to analyze different aspects of the wastes Midland disposed of at the Refinery and the resulting contamination. *See infra*. at 53-55.

the operation of this facility as a refinery during *the time periods... associated with the Midland operating period.*

Ex. 1, Mar. 2011 Rebuttal Report of Ray K. Forrester (“Forrester Rebuttal Report”) at 11-12 (.pdf 17-18) (emphasis added). The Defendants’ three motions all fail to bring this information to the Court’s attention.

2. It is the Defendants’ burden to prove their defenses.

It is the Defendants’ burden to prove defenses, like divisibility and the applicability of CERCLA’s “petroleum exclusion” – an exception to CERCLA’s definition of “hazardous substance.” *See Tosco*, 216 F.3d at n. 5 (“the party asserting the benefit of the petroleum exclusion bears the burden of proof on that issue”); *see also* 42 U.S.C. § 9601(14) (last sentence). The Defendants’ motions, however, invert the respective burdens of proof. They want EPA to “fingerprint” their disposals, link them to specific response costs, and prove that their waste was not petroleum. That is the opposite of how CERCLA works. Moreover, the Defendants’ misleading legal arguments raise no legitimate question about the scientific reliability of the United States’ experts.

C. CERCLA imposes retroactive liability for wastes disposed before its effective date.

1. Disposing “hazardous substances” can trigger CERCLA liability no matter when it happened, even for newly listed wastes.

CERCLA imposes retroactive liability. *See Atl. Richfield Co. v. Christian*, 140 S. Ct. 1335, 1345-47 (2020) (explaining that, after Congress passed CERCLA in 1980, Atlantic Richfield “faced strict and retroactive liability for the many tons of arsenic and

lead that [its predecessor] had spewed across the area over the previous century”); *see also* Feb. 22, 2017 Order at n.2 (Dkt. 62) (“Feb. 22, 2017 Order”). The Defendants ignore this fundamental tenet of CERCLA when they argue that they cannot be held responsible as a matter of law for Midland’s disposals of wastes that later became RCRA listed hazardous wastes. *See* Def. Cohen Mot. at 10; Def. Kittrell Mot. at 10. Indeed they can be. Congress intended CERCLA to do just that in order to clean up hazardous wastes sites abandoned long before the statute was enacted. *See Atl. Richfield Co.*, 140 S. Ct. at 1345-47.

There were no CERCLA “hazardous substances” before CERCLA was enacted in 1980. Once CERCLA came to be, all of the substances listed in the statute’s definition of “hazardous substance” retroactively subjected the PRPs who disposed of them to CERCLA liability, no matter when the disposals happened. And when new substances are added to the set of CERCLA “hazardous substances,” PRPs may then be retroactively liable for any disposals of those newly designated materials as well. That is how Congress intended CERCLA to work. *See Atl. Richfield Co.*, 140 S. Ct. at 1345-47; *see also* Feb. 22, 2017 Order at n.2. Practitioners agree. *See, e.g.*, Ex. 2, David E. Pierce, *The Law of Petroleum Sludges and Slop Oils* at 19 (1992) (explaining that CERCLA hazardous substances (including listed RCRA hazardous) are “retroactive to the beginning of time,” so that, “[i]f you owned a site in the 1800’s that created the newly-listed substance, you will be subject to CERCLA’s liability scheme to respond to a release or threatened release of the substance”); *see id.* at 15 (emphasizing that, “when

the EPA recently listed the F037 and F038 refinery wastes as RCRA hazardous wastes, they also, by definition, became CERCLA hazardous substances”).

Land O’Lakes’ CERCLA liability is therefore triggered by Midland’s disposals of “hazardous substances.” *See* 42 U.S.C. § 9607(a)(2). Even if the disposals occurred before CERCLA was enacted. Even if the waste did not become a CERCLA “hazardous substance” until after CERCLA’s enactment in 1980, or later.

2. RCRA waste listings also apply retroactively to previously disposed wastes.

The Defendants’ liability in this case turns on *CERCLA*’s retroactive effect. Consequently, the Defendants’ arguments challenging that *RCRA* waste listing apply retroactively are largely immaterial.

The Defendants are nevertheless wrong that RCRA hazardous waste listings apply only after the effective date that a waste is listed.¹⁰ Mr. Cohen’s and Dr. Kittrell’s analyses of the hazardous wastes Midland disposed of correctly apply a “nearly self-evident” principle:

[A] waste either does or does not match a [RCRA] listing description. ***The time at which a waste was disposed does not affect what that waste is.***

¹⁰ The Defendants ultimately concede that retroactive application of RCRA listings to previously disposed wastes is permitted, it just takes “considerable work and evidence” to document that retroactive application is appropriate. *See* Def. Cohen Mot. at 10-11 (admitting the retroactive application of RCRA, if properly evidenced); Def. Kittrell Mot. at 11. Despite acknowledging that RCRA listed waste designations apply retroactively in some circumstances, the Defendants nevertheless try to give the Court the impression that the United States’ experts’ adherence to this principle is so serious of an error that it renders their opinions “fatally flawed.” *See* Def. Cohen Mot. at 8-10; Def. Kittrell Mot. at 9-10 (“this error dooms Dr. Kittrell’s entire opinion”); Def. Dahl Mot. at 5-6.

53 Fed. Reg. 31,138, 31,147-48 (Aug. 17, 1988) (emphasis added); *see also* Ex. 2 to Def. Cohen Mot. (Dkt. 131-7), Oct. 30, 2019 Rebuttal Report of Robert M. Cohen, P.G. (“Cohen Rebuttal Report”) at 58-63; Ex. 2 to Def. Kittrell Mot. (Dkt. 132-2), Oct. 30, 2019 Expert Rebuttal Opinion of James R. Kittrell, Ph.D. (“Kittrell Rebuttal Report”) at 16. In other words, RCRA hazardous waste listings “are retroactive, so that once a particular waste is listed, all wastes meeting that description are hazardous wastes *no matter when disposed.*” *See* 53 Fed. Reg. at 31,147 (emphasis added);¹¹ *see also* 57 Fed. Reg. 37,284, 37,298 (August 18, 1992) (explaining that “[s]ince the inception of the RCRA program, hazardous waste listings apply to the material being disposed of, not when it is disposed of”). The Defendants’ RCRA expert agrees. *See* Ex. 3, June 14, 2019 Expert Report of Richard Fortuna (“Fortuna Report”) at 27 (“Hazardous waste listings can apply retroactively to waste land disposed prior to the effective date of the listing”); *see also* Ex. 4, July 14, 2020 Depo. of Richard Fortuna at 247:24-25 and 248:2-3 (“RCRA hazardous waste listings are retroactive”), 249:6-10 (same), and 251:8-18 (agreeing that RCRA “K-list” wastes for the petroleum refining industry are subject to the retroactivity principle).

¹¹ This federal register notice announces a set of RCRA “land disposal restriction” regulations. These regulations implement the statute’s prohibition of land disposing certain listed hazardous wastes unless they meet strict treatment standards (standards for how the wastes must be controlled and treated). *See* 53 Fed. Reg. 31,138. Although RCRA’s *treatment standards* apply prospectively when a newly listed waste is “actively managed,” the preamble explains that the waste is retroactively deemed to be a listed waste – before the listing date (or even before RCRA was enacted). RCRA’s prospective treatment standards are not the same, however, as determining liability under CERCLA for past disposals of “hazardous substances.” *See* 42 U.S.C. § 9706(a)(2).

What this means is that, contrary to the Defendants' unsupported arguments, the timing of Midland's waste disposals *does not matter*. Neither does the date that a particular waste Midland disposed of became a RCRA listed waste. What matters is the nature of what Midland disposed of. And Midland disposed of wastes at the Site that match what the EPA later designated as listed RCRA hazardous wastes. *See, e.g.*, Cohen Report (Dkt. 131-1) at 22-47 and Table 3; Kittrell Report (Dkt. 132-1) at 11-40 and 89-95; *see also* 40 C.F.R. § 261.32 (listed RCRA hazardous wastes from specific sources)¹² and 40 C.F.R. § 261.31 (listed RCRA hazardous wastes from non-specific sources). These wastes are therefore CERCLA "hazardous substances." *See* 42 U.S.C. § 9601(14)(C).

The EPA offered a crystal-clear illustration that, even if the wastes Midland disposed of pre-dated their RCRA listing, they are retroactively considered to be a RCRA hazardous waste:

For example, if on August 9, 1988, EPA were to list distillation bottoms from production of X as a hazardous waste, all such distillation bottoms would be hazardous wastes, regardless of when they are or were generated. ***They are the thing that is listed.***

¹² As the name suggests, "source-specific" listed wastes are generated by or in a specific source. For example, API separator sludge is defined to be RCRA listed waste "K051." *See* 40 C.F.R. § 261.32. If a petroleum refinery has an API separator (which most, if not all, do) and it generates sludge, the sludge is *by definition* K051 waste. *See* Ex. 4, Fortuna Depo. at 262:20-23. In contrast, non-source-specific "F-list" waste can be generated by more than one source and tend to be associated with a particular industrial operation. *See, e.g.*, 40 C.F.R. § 261.31 (explaining the array of refinery equipment that can generate F037 "petroleum refinery primary oil/water/solids separation sludge").

Spent solvent still bottoms disposed of in 1979 (before Agency action listing these wastes as hazardous) are as much spent solvent still bottoms as those disposed in 1981 (after the listing took effect).

53 Fed. Reg. 31,138, 31,147-48 (emphasis added);¹³ *cf.* Def. Cohen Mot. at 8-10.

The Defendants fail to confront this dispositive material in their motion. Quite the opposite. *Cf.* Def. Cohen Mot. at 11 (arguing that retroactively applying RCRA waste listings is “inappropriate,” “makes no sense,” and is “all speculative and *ipse dixit*”).

i. Chem. Waste Mgmt., Inc. v. U.S.E.P.A. agrees that RCRA listed wastes are defined by what was disposed of, not when.

The Defendants’ reliance on *Chem. Waste Mgmt., Inc., v. U.S.E.P.A.*, 869 F.2d 1526 (D.C. Cir. 1989) does not help them. *See* Def. Cohen Mot. at 10. That is a RCRA case. This is a CERCLA case. Both the Supreme Court and this one have already concluded that CERCLA applies retroactively. *See Atl. Richfield*, 140 S. Ct. at 1346-47; *see also* Feb. 22, 2017 Order at n.2. Case law about whether RCRA retroactively imposes legal penalties or other obligations about how hazardous waste is supposed to be treated and disposed of *under RCRA* is not relevant here.

The *Chem. Waste Mgmt.* case focuses on whether the RCRA land disposal restrictions had a retroactive effect. *See Chem. Waste Mgmt.*, 869 F.2d at 1530-31. Notably, the court first found that the EPA “cogently explained” its reasons for concluding that wastes listed under RCRA after their disposal should be considered

¹³ Other CERCLA statutory provisions give retroactive application to RCRA hazardous waste listings. *See* 53 Fed. Reg. at 31,148 (discussing CERCLA Section 103(c) and explaining that “by the terms of the statute, the provision applies only to hazardous

hazardous wastes. *See id.* at 1535 and 1537 (explaining that whether a waste is hazardous “will depend on the composition of the underlying wastes, not on the time at which those wastes were disposed”). That finding mirrors the United States’ and the United States’ experts’ position about retroactivity in this case.

The court then separately concluded that RCRA’s *land disposal restrictions* (*i.e.*, the treatment standards for listed wastes, as opposed to the listing designation of the waste itself) do not operate retroactively. The effect of the court’s decision is to clarify that *under RCRA*, land disposal restrictions do not require the cleanup of any newly listed waste until it is “actively managed.” *See Chem. Waste Mgmt.*, 869 F.2d at 1536; *see also United States v. Conservation Chem. Co.*, 733 F.Supp 1215, 1223 (N.D. Ind. 1989) (“although the actual disposal of hazardous waste into a land disposal unit is not a violation *of RCRA* if the disposal occurred before the material was established...to be a hazardous waste [citation to *Chem. Waste Mgmt.* omitted],” the current storage of that waste may be a violation) (emphasis added). The court’s reasoning is based on RCRA’s regulatory framework and set of requirements. *See id.*

But this is a CERCLA case, not a RCRA case. The Defendants ignore this fundamental distinction and that, under CERCLA, they in fact can be held responsible as a matter of law for Midland’s disposals of wastes that later became RCRA listed hazardous wastes. *Cf.* Def. Cohen Mot. at 10; Def. Kittrell Mot. at 10.

wastes at inactive facilities—facilities with the waste which ceased managing the waste before it was identified or listed”).

ii. *There is no mandatory “presumption” of non-retroactivity.*

The Defendants are correct that, when information about the source of contamination at a site is inconclusive or unavailable, facility owners and operators “may assume” that the contamination is not from listed RCRA hazardous waste. *See* Def. Cohen Mot. at 10-11 (citing U.S. EPA, *Management of Remediation Wastes Under RCRA* at 5 (October 1998) (available at <https://www.epa.gov/sites/production/files/2013-10/documents/remediawaste-rpt.pdf>)). This and other EPA guidance documents allow people to use this assumption at their discretion – they “may assume” wastes did not come from listed sources. *See* Ex. 3, Fortuna Report at 28-30 (citing to similarly phrased EPA guidance documents); *see also* Ex. 4, Fortuna Depo. at 292:2-15 and 293:3-8. But the Defendants distort this discretionary assumption into a strawman “presumption” that must be “overcome.” *See* Def. Cohen Mot. at 10-11 (arguing that “[t]he retroactive application of RCRA... *requires* that the party applying it overcome the presumption of non-retroactivity”) (emphasis added); Def. Kittrell Mot. at 10-11. There is nothing to overcome.

The language of the relevant EPA guidance documents is clearly and uniformly permissive, not mandatory. *See* Ex. 3, Fortuna Report at 28-30 (the cited guidance documents all say that one “may” assume contamination is from a non-listed source in light of inadequate information to identify the source); *see also* Ex. 4, Fortuna Depo. at 292:2-15 and 293:3-8. The assumption that EPA guidance allows people to use is not the mandatory presumption the Defendants try to turn it into.

IV. ARGUMENT

The Defendants do not challenge Dr. Kittrell's, Mr. Cohen's, or Mr. Dahl's qualifications. *See* Def. Cohen Mot. at 1 (acknowledging that both Cohen and Kittrell are "scientists by education and training"); Def. Dahl Mot. at 1 (acknowledging the Mr. Dahl is an "experienced [EPA] administrative staffer").¹⁴ And as explained below, all three experts are qualified to render their opinions, used a reliable methodology to develop them, and properly applied their method or experience in this case.

A. There is no legitimate dispute that Midland disposed of hazardous wastes at the Refinery.

Mr. Cohen's and Dr. Kittrell's reports are replete with evidence of Midland's hazardous waste disposals. *See generally* Cohen Report (Dkt. 131-1) at 22-47 and Tables 3-5; Kittrell Report (Dkt. 132-1) at 11-40, 45-57, and 89-95. Their opinions also track with what the Tenth Circuit recognizes is a "well known" fact about petroleum refineries: they "generate hazardous wastes in addition to petroleum products." *See Tosco*, 216 F.3d at 893. Mr. Dahl reasonably relies on Cohen's and Kittrell's reports for his opinions that are based on his own specialized experience investigating contaminated wastes sites. *See*

¹⁴ The Defendants argue that "Dahl's opinions are based on experience, not science" (Def. Dahl Mot. at 7-9), while agreeing that "[n]othing in Rule 702 prohibits the admission of expert testimony based purely on experience." Def. Dahl Mot. at 8. Mr. Dahl is qualified to opine on EPA's response activities here based on his experience. Dahl is an engineer who spent decades at EPA planning, managing, conducting, and reporting on complex and technically difficult water and hazardous waste pollution investigations, including CERCLA remedies. *See* Dahl Rebuttal Report (Dkt. 133-1) at 2-3 and Att. A; *cf.* Def. Dahl Mot. at 2. He is also a Special Master for the Northern District of Alabama on a CERCLA case regarding the massive Anniston, Alabama PCB site, where he reviews all removal and remedial response activities. *See id.* at 3.

Fed. R. Evid. 703 (allowing experts to base their opinions “on facts or data in the case that the expert has been made aware of”).

The Defendants nevertheless attack these experts’ opinions, as well as their foundation, that Midland disposed of hazardous wastes. *Cf. Tosco*, 216 F.3d at 892–93 (admonishing as “disingenuous” Koch’s effort to discredit evidence in an attempt to avoid the broad scope of CERCLA liability). There are compelling facts supporting the United States’ experts’ opinions, and the Defendants’ own experts corroborate key elements of the opinions. This section illustrates just some of the evidence that Dr. Kittrell, Mr. Cohen, and Mr. Dahl relied upon for their observations and opinions. Because their opinions are well supported and reliable, the Defendants’ motions should be denied on this factual basis.

In addition, the Defendants’ motions should be denied as a matter of law because their challenges “belong in cross-examination,” not in a *Daubert* motion. *See APS of Oklahoma, LLC*, 2018 WL 4608505, at n.15 (citing *Bonner v. ISP Techs., Inc.*, 259 F.3d 924, 929–30 (8th Cir. 2001)). The Defendants dispute the correctness of the facts underlying the United States’ experts’ opinions about Midland’s waste disposals. The Defendants also point to a few instances where, for example with respect to Dr. Kittrell’s opinions, they contend one witness’s testimony contradicts another’s. These challenges do not belong in a *Daubert* motion. “As a general rule, the factual basis of an expert opinion goes to the credibility of the testimony, not the admissibility, and it is up to the opposing party to examine the factual basis for the opinion in cross-examination.” *See id.*

1. Cohen's waste-by-waste analysis shows that Midland disposed of hazardous wastes.

Even a handful of examples show that Mr. Cohen's opinions about Midland's hazardous waste disposals are well supported and meet *Daubert's* standard of reliability:

- Oklahoma's Supreme Court affirmed Midland's liability for a 1970 fish kill in the Cimarron River caused by wastewater overflows from the Refinery. *See* Cohen Report (Dkt. 131-1) at ¶ 67 (page 15) (citing *State of Oklahoma v. Kerr-McGee Corp. et al.*, 619 P.2d 858, 863 (Okla. S. Ct. 1980)). Overflows are a "release" under CERCLA. *See* 42 U.S.C. § 9601(22).
- When the Defendants wanted insurance money to cover the costs of cleaning up the Site, the expert *they* retained unequivocally opined that "releases impacting both on-site and off-site properties occurred during the entire Midland operating period from 1943 to 1977, inclusive." *See* Cohen Report (Dkt. 131-1) at ¶ 117 (page 27) *citing* Ex. 5, June 8, 2010 Report of Ray K. Forrester at 2 (Summary of Opinions).
- Midland officials discussed how oily sludge located in tanks dikes (which would include K169 crude oil storage tank bottoms, the example waste Defendants use in their Cohen motion) constituted one of the Refinery's "major sources of industrial waste." *See* Ex. 6, Sept. 8, 1977 Memorandum from Mick Gaskins to Forrest Fuqua at 1; *see also* Cohen Report (Dkt. 131-1) at ¶ 126 (discussing Ex. 6).

It is worthwhile to highlight the report and testimony of Land O'Lakes' expert, Ray Forrester. Mr. Forrester's opinions corroborate (and are relied upon in) Mr. Cohen's and Dr. Kittrell's overarching findings that there were ongoing releases at the Refinery during the entire Midland operating period from 1943 to 1977. *See* Kittrell Report (Dkt. 132-1) at 100; Cohen Report (Dkt. 131-1) at ¶ 117 (page 27). Land O'Lakes submitted Mr. Forrester's opinions to the U.S. District Court for the District of Minnesota. At *that* time, Land O'Lakes told *that* court:

- Releases at the Refinery, which impacted on-site and off-site properties, occurred in storm water, sediments, groundwater, and process water.
- Damages were likely to have been caused by a series of incremental events over the entire period of operation, and a continuous release of process water.
- Soil, surface water, and sediment contaminant concentrations at the Refinery were sufficiently high so as to impact wildlife.
- Releases impacting both on-site and off-site properties occurred *during the entire Midland operating period from 1943 to 1977*.

See Ex. 7 at 11, Land O'Lakes' Summ. J. Mot. filed in *Land O'Lakes, Inc. v. Employers Mut. Liab. Ins. Co. of Wis., et al.*, No. Civ-09-693-PJS (Aug. 15, 2011 D. Minn.). In *that* proceeding, Land O'Lakes asserted that "on-site contamination [was] well documented in all media, including soil, surface water, sediment and groundwater," and that the relatively diffuse distribution of chemicals at the Site was:

the result of routine operations of the refinery's storm water and process water management plans, including operation of the storm water ditch, storm water ponds, process water ponds, dikes and berms at the tank containment areas, the coke process pond, and other miscellaneous ponds at [sic] located throughout the Site.

See Ex. 1, Forrester Rebuttal Report 10 and 12 (.pdf 16 and 18). Mr. Forrester also specifically linked the environmental impacts documented in the CERCLA remedial investigation/feasibility study to the Refinery's operations, "including but not necessarily limited to the Midland operating period from 1943 to 1977." *See id.* at 12 (.pdf 16).

The Defendants have changed their tune for this Court.

2. Kittrell's report shows Midland's road oiling and waste pits.

Again, for the sake of brevity, we provide only a few examples to show that Dr. Kittrell's opinions about Midland's onsite disposals of hazardous wastes meet *Daubert's* standard of reliability.

i. Road oiling.

Consistent with industry practice, Midland historically spread tank bottoms and API separator sludge on Refinery roads (*a.k.a.*, "road oiling"). Dr. Kittrell highlights evidence of that practice in his report. *See* Kittrell Report (Dkt. 132-1) at 55 and 90-93. And the Defendants' experts confirm that Dr. Kittrell's opinion is reliable, and correct. *See, e.g.*, Ex. 8, July 21, 2020 Depo. of Bernard Delaney ("Delaney Depo.") at 161:8-24; 163:22-25 and 164:2; and 164:21-25. For example, the analysis of the Defendants' aerial photo interpretation expert, Randall Grip, concludes that road oiling happened on Midland's watch. Mr. Grip explains that:

In an Apr. 19, 1963 photo: "Road oiling is visible west and southwest of series of Wastewater Ponds."

In a Dec. 28, 1972 photo: "Road oiling is visible west and southwest of the series of Wastewater ponds."

In a Feb. 4, 1974 photo: "Road oiling is visible west and southwest of the series of Wastewater Ponds."

See Ex. 9, June 14, 2019 Expert Report of Randall Grip at 9-11. Mr. Grip is describing aerial photos of the Refinery, not off-site tank farm roads. *See id.*; *cf.* Def. Kittrell Mot. at 17 (questioning which roads were oiled).

In 1986, the Refinery submitted a certified response to a Department of Justice (“DOJ”) information request which also describes using API separator sludge (“K051” RCRA listed waste) to oil roads:

Anna L. Wolgast, Esq.
March 3, 1986
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Current refinery employees do recall that API separator sludge was removed from time to time and, due to its texture and physical characteristics, was used for refinery road maintenance purposes. Current employees recall that use on refinery roadways did not occur often and the more typical practice was to reuse the sludge in the refining process. The specific quantities and locations of this material are impossible to ascertain. This was a relatively common practice in the refining industry for many years.

See Ex. 10 at 7, March 3, 1986 Letter to Anna L. Wolgast, Esq., DOJ; *see* 40 C.F.R. § 261.32. This sworn response relied on interviews with Refinery employees Forrest Fuqua and Glen Wright. This is the same Glen Wright whose much-later deposition testimony the Defendants rely on to claim that API separator sludge was *not* spread on Refinery roads. *See* Def. Kittrell Mot. at 17.

Despite these concrete facts, the Defendants criticize Dr. Kittrell’s opinion that the Refinery historically spread tank bottoms and API separator sludge on Refinery roads. *See* Def. Kittrell Mot. at 17 (claiming Kittrell ignored contrary evidence and that the roads to which Mr. Fuqua refers are “unknown, but the likely tank farm roads [sic]”).

ii. Waste pits and tank bottoms.

There is also ample evidence in Refinery records and the depositions testimony of former Refinery employees that Midland disposed of tank bottoms on Refinery grounds, including in pits. The Defendants attempt to minimize these disposals by claiming that

tank bottoms were only held in pits “for a period of time” or “temporarily.” But even temporarily holding those wastes in an earthen pit constitutes a “release” of hazardous substances to the environment. CERCLA’s definition of “release” does not contain any temporal requirement. *See* 42 U.S.C. § 9601(22) (a “release” includes “any” emitting into the environment). There is no exception in CERCLA for “releases” that are moved to another location.

Even assuming that the sludgy and liquid wastes Midland dumped on the Refinery’s ground were eventually removed to other locations, residues of those wastes would remain. But it appears that not all of the tank bottoms that were “located in the dikes” surrounding tanks at the Refinery were actually removed. Refinery records indicate that only “some” of these tank bottoms were sold to “oil reclaimers,” as described in a 1977 memo to Refinery manager Forrest Fuqua:

HUDSON REFINING COMPANY INC.
P. O. BOX 1111 CUSHING, OKLAHOMA 74023

MEMORANDUM

DATE: September 8, 1977
TO: Forrest S. Fuqua
FROM: Mick Gaskins
SUBJECT: Landfarming of Industrial Waste

* * * *

The refinery's major sources of industrial waste are:

1. Biological sludge from the lagoon system.
2. Oily sludge from the API Separator and tank dikes.
3. Coke fines and dirt associated with leaks and spills.

At present these wastes are being dumped in an area located in the northwest area of the refinery property. Some of the tank bottoms located in the dikes are being sold to an oil reclaimer. Both methods of disposal do not meet the requirements of the Act.

Three alternatives exist for the Cushing Refinery:

1. To continue operations as they presently are and run the risk of being punished by the State.
2. Start a landfarming operation at the Cushing Refinery for the disposal of the wastes.
3. Hire an outside contractor licensed by the State to dispose of the wastes.

See Ex. 6 at 1.¹⁵ It is important to understand that using vacuum trucks or scoop and haul operations to remove tank bottoms or other sludge is not the same as performing environmental remediation. These operations would leave residues in the soil of the temporary pits (if the materials were, in fact, removed), which would then migrate through soil when contacted by rainwater or releases of oil. *See, e.g.*, Cohen Report (Dkt. 131-1) at ¶¶ 95-96 (page 21).

Invoices and reports from Refinery contractors provide additional evidence that Midland used pits for waste disposal. For example, Don's Oilfield Service, Inc.:

¹⁵ This memo also demonstrates that the "landfarm" the Defendants refer to in their Kittrell motion had not yet started to operate as of late 1977. In addition, Midland did not acquire the North Refinery property, where the Defendants claim Midland dumped its wastes like tank bottoms and API separator sludge, until approximately 1952. The Defendants have no explanation for where Midland dumped its wastes during the first almost decade of its operations (from 1943 to 1952).

- Dug a 50 foot by 50 foot “disposal pit”:

DON'S Oilfield Service, Inc.
Donald W. Christy OCC Permit #27792

Date Feb 27, 1975 Lease Service Contract

11514
Daily Time Report

Labor and Equipment	Hrs.	Rate	Amount	Description of Work
TD9 - Christy	8	\$17.00	\$136.00	Dug 50' x 50' disposal pit.

Company Midland Co-op Ordered by
Approved

- Dug a pit for “tank bottom disposal”:

DON'S Oilfield Service, Inc.
Donald W. Christy OCC Permit #27792

Date Jan 29, 1975 Lease Service Contract

11508
Daily Time Report

Labor and Equipment	Hrs.	Rate	Amount	Description of Work
TD9 Dozer w/operator Christy	6	\$17.00	\$102.00	Dug pit for tank bottom disposal.

Company Midland Co-op Ordered by
Approved

- Skimmed a pit on the South Refinery:

DON'S Oilfield Service, Inc.
Donald W. Christy OCC Permit #27792

Date Jan 25, 1975 Lease Refinery Service Contract

R2643
Daily Time Report

Labor and Equipment	Hrs.	Rate	Amount	Description of Work
Vacuum Truck - Holder	4 1/2	\$14.00	\$65.00	Skimmed pit on south side and emptied sump pit. Skimmed pond on Depot street.

Company Midland Co-op Ordered by
Approved

- And built a pit for bottom sediment (*a.k.a.*, “B S” or tank bottoms) from tank cleanings.

DON'S Oilfield Service, Inc.				31505
Donald W. Christy		OCC Permit #27792		Daily Time Report
Date	Jan 24, 1975	Lease	Service Contract	
Labor and Equipment	Hrs.	Rate	Amount	Description of Work
DDG Dozer - Christy	4	\$17.00	\$68.00	Built pit for B S from tank cleaning.

All of these documents are from a *single* contractor in a *single* year during Midland's time (1975). *See* Ex. 11, Refinery Contractor Invoices and Records at USEPA0431797, 1802, 1806, and 1811. Other invoices and contractor records document similar instances of waste handling at the Refinery.¹⁶

The Defendants ask this Court to believe that these invoices reference either “non-specific” pits, or “when they do specify locations, the location is ‘top pits’ or ‘waste pits’” (which the Defendants say means the Refinery's landfarm area). *See* Def. Kittrell Mot. at 18. This is false. Refinery contractor invoices reference, among other pits:

- “[P]its at the alkali unit;”¹⁷
- A “pit at the cat unit;”¹⁸
- A “pit on Depot Street;”¹⁹

¹⁶ Midland also reported to the Oklahoma State Department of Health that it buried toxic tetraethyl lead sludge at the Site. *See* Cohen Report (Dkt. 131-1) at ¶ 174 (page 39) (quoting a Nov. 3, 1976 “Industrial Waste Survey” describing periodic disposals of tetraethyl lead sludge).

¹⁷ Ex. 11 at USEPA0431765.

¹⁸ *Id.* at USEPA0431753.

¹⁹ *Id.* at USEPA0431758.

- A “pit on south side;”²⁰
- “[S]lop pits;”²¹
- “[P]its on tank #39 + 40;”²² and
- A “pit behind cooling tower.”²³

These are apparently what the Defendants consider to be “non-specific” pits. *See* Def. Kittrell Mot. at 18. But these pits clearly existed, and the Defendants’ point that their exact location cannot now be identified simply corroborates Mr. Dahl’s opinion that the EPA’s Site investigation and cleanup efforts had to account for the “unknowns regarding the locations and amounts of disposal over time at the Site.” *See* Dahl Rebuttal Report (Dkt. 133-1) at 29.

Deposition testimony further confirms Dr. Kittrell’s opinions. Former Refinery manager Al Williams testified that tank bottoms from Tank 36 (Crude Oil Storage)²⁴ were located on the bare ground around the tank.

Q: Around the tank 36, you typically would have something called heavy residuals around tank 36, right?

A: Yes.

Q: And that was bottoms from tank 36?

²⁰ *Id.* at USEPA0431805.

²¹ Ex. 12, Depo. Ex. 73 at USEPA0431319.

²² *Id.* at USEPA0431335.

²³ *Id.* at USEPA0431337

²⁴ *See* Cohen Report (Dkt. 131-1) at Table 1 (.pdf 72) (describing contents of Tank 36 over time).

A: Yes.

Q: Okay. And those heavy residuals around tank 36 were on bare ground around tank 36, correct?

A: Yes.

See Ex. 13, May 14, 2018 Depo. of Louis Al Williams at 101:16-24.

3. The *Defendants'* experts agree that Midland disposed of hazardous wastes.

The Defendants' own experts confirm that Midland disposed of hazardous wastes at the Refinery. For example:

- Almost all of the Refinery's waste handling practices involved some form of land disposal. See Ex. 8, Delaney Depo. at 155:6-15; 153:21-25 and 154:2; see also Ex. 14, June 14, 2019 Expert Report of Dr. B. Tod. Delaney ("Delaney Report") at Table 1 (listing examples of Midland's land disposal practices).
- Leaded gasoline storage tanks bottoms (K052 RCRA listed waste) were reportedly spread on Refinery roads, which constitutes onsite land disposal. See Ex. 8, Delaney Depo. at 161:8-24; see also *id.* at 163:22-25, 164:2 and 21-25 (explaining that the prevalent waste disposal "technology" for leaded gasoline tanks bottoms was to "just pump the tank contents into an excavated pit[, allow it to weather,] and then cover the pit"), and 165:2-9 (explaining that the "lead will stay behind" if leaded tank bottoms are spread on roads).
- The types of oily waste materials that were ultimately listed as F037 and F038 wastes were generated and transported by Midland in its process wastewater system. See Ex. 4, Fortuna Depo. at 270:24-25 and 271:2-18.
- During tank cleanout operations, tank bottom sludge may have been "temporarily" placed on the ground next to the tank. See Ex. 15, June 14, 2019 Expert Report of Dr. Tarek Saba ("Saba Report") at n. 35; see also 42 U.S.C. § 9601(22) (a "release" includes "any," even temporary, emitting into the environment).

There are many other examples. That is what trial is for. The Defendants mis-characterize Mr. Cohen’s well-documented opinions about Midland’s hazardous waste disposals as mere “belief.” *See* Def. Cohen Mot. at 12. But his and Dr. Kittrell’s reports speak for themselves. Dr. Kittrell’s, Mr. Cohen’s, and Mr. Dahl’s opinions are reliably grounded in facts and evidence, and they clearly meet *Daubert*’s standard for admissibility. *See APS of Oklahoma, LLC*, 2018 WL 4608505, at *4 (explaining that *Daubert*’s standard of reliability is “lower than the merits standard of correctness”).

B. Midland’s disposals of listed RCRA hazardous wastes are documented such that retroactive effect is proper.

The Defendants make a two-prong attack on Mr. Cohen’s opinions that Midland, like other refineries, disposed of listed hazardous wastes onsite. First, the Defendants claim, with zero reference to his report, that Mr. Cohen did not sufficiently document the presence of listed RCRA hazardous wastes at the Site to “overcome the presumption of non-retroactivity.”²⁵ *See* Def. Cohen Mot. at 10-11. The Defendants make the same argument against Dr. Kittrell. *See* Def. Kittrell Mot. at 11. Second, the Defendants claim that Mr. Cohen essentially fabricated his conclusions that Midland disposed of such wastes onsite. *See* Def. Cohen Mot. at 11 (arguing that Cohen never investigated whether K169 waste was ever released). Both points fail.

As highlighted above, Mr. Cohen and Dr. Kittrell rely on ample documentation to establish that Midland generated and disposed of listed RCRA hazardous wastes at the

²⁵ This fallback argument about the necessary level of documentation to overcome a “presumption” against retroactive application of RCRA listed wastes is plainly inconsistent with their first position that it simply cannot legally be done.

Refinery. To the extent the EPA guidance the Defendants rely upon is relevant here, it requires only that a “good faith effort” be made to determine if a material is a listed hazardous waste. *See* U.S. EPA, *Management of Remediation Wastes Under RCRA* at 5 (October 1998) (available at <https://www.epa.gov/sites/production/files/2013-10/documents/remediawaste-rpt.pdf>); *see also* Ex. 4, Fortuna Depo. at 285:21-25 and 286:2-4 (discussing other EPA guidance similarly requiring that a “reasonable effort” be made). Mr. Cohen and Dr. Kittrell easily clear this bar. *See generally* Cohen Report (Dkt. 131-1), Cohen Rebuttal Report (Dkt. 131-7), Kittrell Report (Dkt. 132-1), and Kittrell Rebuttal Report (Dkt. 132-2). The Defendants’ RCRA expert agrees that information collected during a typical Superfund site investigation should be sufficient to document the presence of a listed RCRA hazardous waste. *See* Ex. 4, Fortuna Depo. at 286:7-12 and 23-25; 287:2-11.²⁶ And Mr. Fortuna has no basis to suggest that the EPA’s site investigation here was atypical. *See id.* at 287:12-25 and 288:2-11.

The Defendants inflate the level of documentation required to establish the presence of a RCRA listed waste into a “conclusive” standard of proof. But the guidance they and their expert cite is clear that the types of documentation Mr. Cohen and Dr. Kittrell relied upon are perfectly appropriate and satisfy the requisite “good faith effort.” *See id.* at 285:21-25 and 286:2-4 (“you don’t have to turn the whole world upside down to reject the fact that it’s a listed waste”).

²⁶ The deposition transcript (at 287:6-9) erroneously indicates a quote from EPA guidance. The material in quotations is not a direct quote.

Mr. Cohen and Dr. Kittrell examined myriad types of documentation and information, including analytical sampling data, to reach their conclusions. *See generally* Cohen Report (Dkt. 131-1) and Cohen Rebuttal Report (Dkt. 131-7); Kittrell Report (Dkt. 132-1) and Kittrell Rebuttal Report (Dkt. 132-2). This information included, for example, the indisputable fact that Midland operated the types of refinery equipment that generate source-specific RCRA K-list wastes, like API separators, crude oil storage tanks, leaded gasoline storage tanks, and more.²⁷ *See, e.g.*, Cohen Report (Dkt. 131-1) at 22-47; Kittrell Report (Dkt. 132-1) at 11-40; *see also* 40 C.F.R. § 261.32. Because of the presence of these waste sources, the Defendants’ expert agrees that “all refineries... would have had a petroleum waste that eventually became a listed waste under the RCRA programs.” *See* Ex. 8, Delaney Depo. at 94:16-25 and 95:2-6; *see also id.* at 149:14-24 (discussing Table 1 in Delaney’s report (Ex. 14) and agreeing that Midland more likely than not generated all of the wastes listed in the table). Mr. Cohen and Dr. Kittrell also looked at other types of information, including:

- Refinery records of disposals. *See, e.g.*, Cohen Report (Dkt. 131-1) at ¶ 126 (page 22) (discussing disposals of tank bottoms and API Separator sludge).
- RCRA permitting materials for the Refinery. *See, e.g., id.* at ¶ 92 (page 21) and ¶ 175 (page 39) (discussing estimate that the Refinery generated over 10,000 pounds per year of RCRA-listed K052 leaded tank bottoms).

²⁷ In contrast to Mr. Cohen’s analysis, Mr. Fortuna is “not making a determination whether certain K wastes were generated at the site.” *See* Ex. 4, Fortuna Depo. at 259:14-25 and 260:2-16; and 261:4-14. The Defendants therefore have scant basis to challenge Mr. Cohen’s documentation of those wastes.

- Witness testimony. *See, e.g., id.* at ¶ 171 (page 38) (testimony of Refinery employee Jim Roll).

The Defendants' expert agrees that all these types of information are appropriate to consider in assessing whether contamination at a site is derived from listed hazardous waste. *See* Ex. 4, Fortuna Depo. at 264:3-9 (information from plants records and the types of tanks is relevant); 264:10-15 (RCRA permitting files and applications are a potential source of information); 295:21-2, 296:2-4 and 18-25, and 297:2 (citing other appropriate sources of information).

At best, the Defendants' argument about the level of documentation Mr. Cohen and Dr. Kittrell used to support their opinions is exactly the type of challenge that goes to the "weight and sufficiency" of the basis for the opinions, not their admissibility.²⁸ *See Valley View Angus Ranch*, 2008 WL 2329169, at *3.

²⁸ The Defendants argue that how EPA managed the wastes cleaned up during the RCRA corrective action and later CERCLA work somehow absolves them of CERCLA liability. *See* Def. Kittrell Mot. at 12; Def. Cohen Mot. at 11. These off-base arguments do not reflect how CERCLA operates. Moreover, EPA's RCRA corrective action work started in 1986 and ended in 1994, before a number of, but not all, RCRA refinery wastes were listed. *See, e.g.*, 63 Fed. Reg. 42,110 (Aug. 6, 1998) (listing of K169-K172 refinery wastes). The work was completed before the policy on handling remediation wastes cited by the Defendants. *See* Def. Cohen Mot. at n.1 (citing 1998 policy). The CERCLA remedial work required testing to determine the hazardousness of the remediation wastes, like contaminated soil and sediment, before it could be disposed of. *See* Ex. 16 at 5, July 6, 2009 Sampling and Analysis Plan, Volume 2 of 3, Field Sampling Plan, Remedial Design (describing that analytical parameters will be used at the Site for evaluating, among other things, "and soil and sediment disposal profiling").

C. CERCLA’s “petroleum exclusion” is inapplicable when hazardous wastes mix with petroleum products in soil and groundwater.

As explained, it is the Defendants’ burden to establish that CERCLA’s petroleum exclusion applies at the Site. *See Tosco*, 216 F.3d at n.5. Dr. Kittrell’s and Mr. Cohen’s analyses nevertheless show that the Defendants cannot meet their burden. Even the Defendants’ petroleum exclusion expert – Dr. Paul Boehm – admits that certain portions of the Refinery “do not fall within CERCLA’s petroleum exclusion.” *See* Ex. 17 at n.4 (page 5), Aug. 7, 2015 Aff. of Paul D. Boehm (“Boehm Aff.”) (discussing the sediments in Wastewater Treatment Ponds 1-6 and Aeration Pond 7).²⁹

CERCLA’s petroleum exclusion does *not* apply to mixtures of petroleum and hazardous wastes found in soil and groundwater at a refinery. And here, hazardous and other wastes commingled at the Refinery over a period of decades. This now-inseparable mixing process eviscerated the petroleum exclusion’s applicability because of the operation of RCRA’s “Mixture Rule.” As Defendants point out in their motion, RCRA’s Mixture Rule states that mixing a non-hazardous waste with a listed RCRA hazardous waste renders the mixture a hazardous waste. *See* Def. Kittrell Mot. at 20 (citing 40 C.F.R. § 261.3(a)(2)(iv)). Dr. Kittrell relies on the same rule:

The RCRA Mixture Rule states that: ‘...a mixture made up of any amount of a nonhazardous solid waste and any amount of a listed hazardous waste is considered a listed hazardous waste. In other words, if a small vial of listed waste is mixed with a large quantity of nonhazardous waste, the resulting mixture bears the same waste code and regulatory status as the original listed component of the mixture.’

²⁹ *See also* Ex. 18, Aug. 17, 2015 Aff. of Jay Vandeven (“Vandeven Aff.”) at ¶¶ 24, 70, and 31 (Opinion 3).

See Kittrell Report (Dkt. 132-1) at 94 (noting that “[t]his principle applies regardless of the actual health threat posed by the waste mixture’s chemical composition”).

The Tenth Circuit shares this understanding of how RCRA’s Mixture Rule will undo CERCLA’s petroleum exclusion. In *Tosco*, the Tenth Circuit upheld the district court’s finding that “hazardous wastes have commingled with the petroleum products in the soil and floating on the groundwater beneath the refinery, thus rendering the CERCLA petroleum exclusion inapplicable.” *See Tosco*, 216 F.3d at 893. The *Tosco* court relied upon sampling results and expert testimony which “confirm[ed] that certain soil at the Refinery, as well as the petroleum plume in the groundwater aquifer beneath the Refinery, contains a mixture of petroleum and hazardous wastes generated and disposed from numerous sources at the Refinery.” *See id.* The United States’ experts are presenting similar evidence here.

Furthermore, courts, including the Tenth Circuit, have concluded that crude oil storage tank bottoms (K169 waste) – the waste Defendants use as an illustration in their Cohen motion – are not subject to CERCLA’s petroleum exclusion because they are not “petroleum, including crude oil or a fraction thereof.” *See Cose v. Getty Oil Co.*, 4 F.3d 700, 705 (9th Cir. 1993); *see also Tosco*, 216 F.3d at 893 (citing *Cose*).³⁰ In other words, crude oil storage tank bottoms do not meet the definition of CERCLA’s petroleum

³⁰ In *Cose*, the court rejected that CERCLA’s petroleum exclusion applied to crude oil storage tank bottoms because “the definitions of ‘fraction’ and ‘petroleum’...urge a conclusion that crude oil storage tank bottoms *do not* fall within CERCLA’s exclusion of ‘petroleum, including crude oil or a fraction thereof.’” *See Cose*, 4 F.3d at 705 (emphases in original). Notably, *Cose* was decided in 1993, years before the EPA designated crude oil storage tank bottoms as RCRA listed waste K169. *See id.*

exclusion. *See* 42 U.S.C. § 9601(14). So regardless of whether it is a RCRA listed waste, Midland’s disposals of crude oil storage tank sediment are not subject to the petroleum exclusion, and they trigger CERCLA liability for the Defendants. *See* 42 U.S.C. § 9607(a)(2).

1. Cohen explains the “mixing” that disproves the Defendants’ “Petroleum Exclusion” defense.

Mr. Cohen relies on analytical sampling results and historical information about the Refinery, including aerial photographic analysis, to conclude that hazardous substances from Refinery wastes commingled over long periods of time at the Refinery. *See, e.g.*, Cohen Report (Dkt. 131-1) at ¶¶ 95-96, 98, and pages 22-29 and 49-54. As he explained at his deposition, that commingling process is “consistent with the basic understanding of the physics of fluid flow...and of partitioning of chemicals.” *See* Ex. 3 to Def. Cohen Mot. (Cohen Depo.) (Dkt. 131-14) at 47:11-23.

For a more specific example, we can examine the K169 waste the Defendants highlighted in their motion. Mr. Cohen discusses Midland’s disposals of crude oil storage tank bottoms at the Refinery, including within tank dike areas. *See, e.g.*, Cohen Report (Dkt. 131-1) at ¶ 126 (page 22) (discussing Ex. 6 at 1). Mr. Cohen also discusses, based on aerial photographic analysis, witness testimony, and other documentation, that oily liquids and sheens were found around Refinery tanks. *See id.* at ¶¶ 115-125 (pages 26-29). Mr. Cohen’s analysis puts these pieces together to conclude that CERCLA’s petroleum exclusion does not apply because waste materials and potential petroleum excluded materials “migrated, partitioned between phases, weathered, and comingled

over time” to such an extent that it is “very difficult, if not impossible, to discriminate between the sources of like chemicals detected in soils, sediment, and groundwater at the Site.” *See id.* at ¶¶s 13 and 98 (pages 4 and 21-22).

Mr. Cohen’s analysis shows that soils, sediments, and groundwater at the Refinery contained an indistinguishable mixture of petroleum and hazardous wastes generated by numerous sources at the Refinery over decades of operations. And his opinions are based on more than just “[b]ecause Cohen says so.” *Cf.* Def. Cohen Mot. at 15. Here, as in *Tosco*, CERCLA’s petroleum exclusion therefore does not apply. *See Tosco*, 216 F.3d at 893 (affirming district court’s determination that “hazardous wastes have commingled with the petroleum products in the soil and floating on the groundwater beneath the refinery, thus rendering the CERCLA petroleum exclusion inapplicable”). Any challenges the Defendants have to Mr. Cohen’s opinions go to the weight and sufficiency of his foundation, not the admissibility of those opinions.

2. Kittrell identifies specific locations where Midland disposed of RCRA listed wastes.

Dr. Kittrell explains that “[a]ny co-mingling of refined crude products with RCRA listed wastes become those RCRA listed wastes, and as such, would not qualify for the CERCLA petroleum exclusion.” Kittrell Report (Dkt. 132-1) at 94. The Defendants agree. *See* Def. Kittrell Mot. at 20 (“[t]he RCRA Mixture Rule states a mixture of a non-hazardous waste with a listed hazardous waste becomes a hazardous waste”).

The Defendants nevertheless challenge Dr. Kittrell’s opinion that CERCLA’s petroleum exclusion does not apply in this case because he “does not opine on where

hazardous wastes were released” at the Site. *See* Def. Kittrell Mot. at 20. But this is false. Dr. Kittrell points out that tank bottoms (K052 and K169 hazardous wastes) and API separator sludge (K051 hazardous waste) were spread on Refinery roads. *See* Kittrell Report (Dkt. 132-1) at 91-92. He cites deposition testimony identifying that Clarified Slurry Tank Sediment (K170 hazardous waste) was buried in an eight by eight foot pit next to Tank 43. *See id.* He relies on testimony and documentation that tank bottom sediments (crude oil tank and leaded oil tank sediments are RCRA listed hazardous wastes) were scraped out of tanks and placed in earthen pits adjacent to the tanks. *See id.* He also describes that hazardous wastes were deposited in the Refinery wastewater ponds, including API separator sludge (K051) and F038 RCRA listed wastes (residual refinery wastewater sludge). These are all specific locations of Midland’s waste disposals, and they coincide with areas the EPA cleaned up. GPS-coordinate precision is not what CERCLA requires to establish liability or that the petroleum exclusion does not apply. *See Tosco*, 216 F.3d at 892 (examining circumstantial evidence and the “totality of the circumstances” to infer CERCLA liability).

The Defendants also claim that “[i]n all of his prior work, Dr. Kittrell never encountered a site that warranted application of the petroleum exclusion.” *See* Def. Kittrell Mot. at 21 (citing p. 59 of Kittrell’s deposition). Again, false. No such testimony exists on page 59 or anywhere else in Dr. Kittrell’s deposition. And at the same time the Defendants disingenuously contend that Dr. Kittrell believes the petroleum exclusion can never apply at a petroleum refinery, they also suggest that the exclusion *always* negates CERCLA liability at a petroleum refinery. In other words, the Defendants contend that

petroleum refineries are categorically excluded from CERCLA liability. Incorrect. *See, e.g., Tosco*, 216 F.3d at 893.

Despite the Defendants’ arguments, the Defendants’ experts concede that the Refinery is not entitled to a blanket application of the petroleum exclusion. Dr. Boehm and Mr. Vandeven state unequivocally that CERCLA’s petroleum exclusion ***does not apply*** to, for example, the Refinery wastewater ponds.³¹

Indeed, one of Defendants’ experts in this case, Robert Zoch, opined in a different case that the petroleum exclusion did not apply even at a *gasoline* service station. In that case, the Defendants’ current expert emphasized how “CERCLA Defendants invoking the [petroleum] exclusion in order to opt out of Superfund site responsibility *have a difficult burden* of demonstrating that their contribution was strictly of oil.” *See* Ex. 19 at 3, Expert Report of Robert M. Zoch, Jr., P.E. filed in *Esso Stand. Oil Co. v. Perez*, No. Civ. 01-2012, 2004 WL 5523653 (D. P.R. Apr. 26, 2004) (emphasis added). According to the Defendants’ expert:

analyses of “Congressional intent” of the petroleum exclusion universally concluded that the exclusion was limited, and that it was primarily directed at oil spills.

See id. This limited scope makes sense because “many if not most Superfund sites contain substances indicative of ‘petroleum.’” *See id.* So, Congress intended the petroleum exclusion “to exclude spills of oil only, *not to exclude any mixture of oil and hazardous substances* nor to exclude residues of petroleum,” lest the exception swallow

³¹ *See* Ex. 15, Boehm Aff. at n.4 (page 5); Ex. 18, Vandeven Aff. at ¶¶ 24, 70, and 31 (Opinion 3).

the statute. *See id.* (reciting that “[t]he Senate report which explains the scope of the petroleum exclusion states that it excludes releases or spills strictly of oil. Releases of contaminated oil, even resulting from “normal use,” were not to be excluded from regulation”).

If a gas station faces such a difficult burden invoking CERCLA’s petroleum exclusion, surely a petroleum refinery like Midland’s, that generated multiple streams of listed RCRA hazardous wastes, faces at least a similarly difficult burden.

D. The United States’ experts reliably applied their expertise to develop their opinions.

1. Mr. Cohen.

i. Cohen uses his expertise as a hydrogeologist to opine about how contamination spread at the Refinery.

Mr. Cohen is a professional hydrogeologist with approximately “37 years of experience assessing environmental contamination, migration, and remediation, evaluating groundwater resources, and performing related work,” including investigating sites that were impacted by petroleum releases and CERCLA hazardous substances. *See* Cohen Report (Dkt. 131-1) at ¶ 4 (page 1) and Appendix A (Resume of Robert M. Cohen). As part of formulating his opinions, he examined the chemical constituents of RCRA listed hazardous wastes and identified them at the Site by examining sampling data. *See, e.g.,* Cohen Report (Dkt. 131-1) at ¶ 11 (page 3) (concluding that the same hazardous substances that are contained in RCRA-listed refinery hazardous wastes were released to the environment at the Site, as documented by investigation results that were

based on sampling and analysis methods that are both reliable and commonly performed at Superfund sites); *see also* Cohen Rebuttal Report (Dkt. 131-7) at 23-29 (examining chemical ratios to analyze the presence of hazardous wastes in soil samples).³² That is scientific analysis.

Mr. Cohen also brought his scientific knowledge as a hydrogeologist to bear in determining that hazardous substances detected in soil, sediment, surface water, and groundwater in many areas of the Site “migrated, partitioned between phases, weathered, and comingled over time and space with unadulterated petroleum and its fractions that had also been spilled, leaked, or otherwise released at the Site.” *See id.* at ¶ 13 (page 4) (explaining that “the resultant mixing of hazardous substances defined under CERCLA with similar substances that may be subject to the petroleum exclusion provision of CERCLA renders the mixed materials hazardous substances under CERCLA and makes it impossible, to a reasonable degree of scientific certainty, to distinguish between the sources of like chemicals detected in soils, sediments, and groundwater in areas that USEPA responded to at the Site”); *see also id.* at pages 49-54 (discussing migration of commingled contaminants). Again, understanding how hydrogeologic process affected the Site contamination requires scientific analysis. As a specific example, Mr. Cohen

³² Mr. Cohen’s initial and rebuttal reports disclose the chemical ratio data and analysis that he plans to opine on. At his deposition, Mr. Cohen explained that he performed additional chemical ratio analysis to assist the United States in preparing to depose several of the Defendants’ experts. The United States refused to provide that limited additional analysis on work product grounds and because Mr. Cohen will not testify about that analysis at trial. Dis-satisfied with the United States’ position, the Defendants’ “remedy” was to unilaterally submit three “supplemental” expert reports on September 4, 2020, weeks after discovery closed in mid-August of 2020. *Cf.* Def. Cohen Mot. at n. 2.

explained at his deposition that he concluded F037 and F038 listed RCRA wastes were generated in the Refinery's "Coke Pond" and migrated into the surrounding soils because

observation, the visual contamination, hydrocarbon odors and detection using instruments of volatile organic compounds associated with sediment soils and the waste materials themselves are consistent with the basic understanding of the physics of fluid flow in the subsurface and of partitioning of chemicals in the subsurface, indicative that there was some degree of hazardous substance migration from the F037/F038 that was deposited over decades in the coke pond into the surrounding environment.

See Ex. 3 to Def. Cohen Mot. (Cohen Depo.) (Dkt. 131-14) at 47:11-23.

The Defendants consider Mr. Cohen's answer about, for example, "the physics of fluid flow" to amount to a mere "belief." *See* Def. Cohen Mot. at 12. But the explanations he provides in his report and at his deposition are much more than the unsupported "trust me, I'm an expert" the Defendants mischaracterize it as. The Defendants' claim that Mr. Cohen "did not...use his scientific knowledge or expertise" is, simply put, untrue. *See* Def. Cohen Mot. at 14.

ii. Cohen's asbestos opinion is based on sound witness testimony and aerial photographic analysis.

Mr. Cohen's opinions about Midland's releases of asbestos-containing materials at the Refinery are the product of a reliable analysis. The Defendants' asbestos expert confirms that Midland made extensive use of asbestos-containing thermal insulation for its process equipment. *See* Ex. 20, June 1, 2020 Depo. of Christopher Lane at 38:14-17. Midland also used an area on the north-east portion of the Refinery as a "bone pile" or "bone yard" where decommissioned refinery equipment was sent. *See* Ex. 21, July 18, 2018 Depo. of Glen Wright at 365-368 (explaining that "[d]uring turnaround or any time

we replaced something, whatever they replaced, they'd take it up here and there put it there"). The discarded equipment sent to the bone pile could sit there for years, on bare ground, exposed to the weather. *See id.* at 366:19-23, 367:22-25, and 368:2-3. Aerial photo analysis performed by the United States' aerial photo expert confirms Mr. Wright's deposition testimony that refinery equipment was left in the bone pile for years. *See* Cohen Report (Dkt. 131-1) at 48; *see also* Cohen Rebuttal Report (Dkt. 131-7) at 30-31 (explaining photos of equipment in the bone pile area during Midland's ownership).

Given the prevalence of asbestos-containing insulation at the Refinery and the fact that Midland did not have procedures specifying how to dispose of asbestos containing materials (*see* Ex. 20, Lane Depo. at 35:4-10, 36:2-7, 37:18-25, and 38:2-12), Mr. Cohen rendered his opinion that this abandoned refinery equipment could have released asbestos into the environment, particularly in the "bone pile" area. *See* Cohen Report (Dkt. 131-1) at 48; Cohen Rebuttal Report (Dkt. 131-7) at 30 (noting the "relative lack of attention paid to health concerns and dispersal of asbestos prior to 1970"). Approximately 390 cubic yards of soil and debris contaminated with asbestos was removed from this area during the remedial action. *See id.* Mr. Cohen reasonably relied upon these kinds of circumstantial evidence, which the Tenth Circuit allows as an appropriate basis from which to infer CERCLA liability. *See Tosco*, 216 F.3d at 892.

The Defendants' asbestos expert also confirms that periodic maintenance work at the Refinery could have released asbestos containing materials elsewhere in the Refinery. *See* Ex. 20, Lane Depo. at 41:24-25 and 42:2-4 (explaining that asbestos insulation could become damaged during refinery maintenance work and, in some cases, fall to the

ground). As part of performing maintenance on refinery process equipment, portions of asbestos-containing insulation would have to be, at least temporarily, removed in order to access the equipment interior. *See id.* at 41:2-9 and 18-22. And in order to remove the asbestos containing insulation, “you might have to chip off, you might have to crack it and break it and pull it away.” *See id.* at 41:10-17. The Defendants’ asbestos expert therefore confirms the witness testimony that Mr. Cohen relied on to conclude that “it is reasonable to expect that some asbestos was released to the environment during installation, repair, renovation, demolition, weathering, and/or outdoor storage of process equipment.” *See* Cohen Rebuttal Report (Dkt. 131-7) at 30; *see also* Cohen Report (Dkt. 131-1) at 48 (referencing deposition testimony about “a refinery employee with a hammer ‘knocking the asbestos off of [a] valve, right down on my helmet’”).

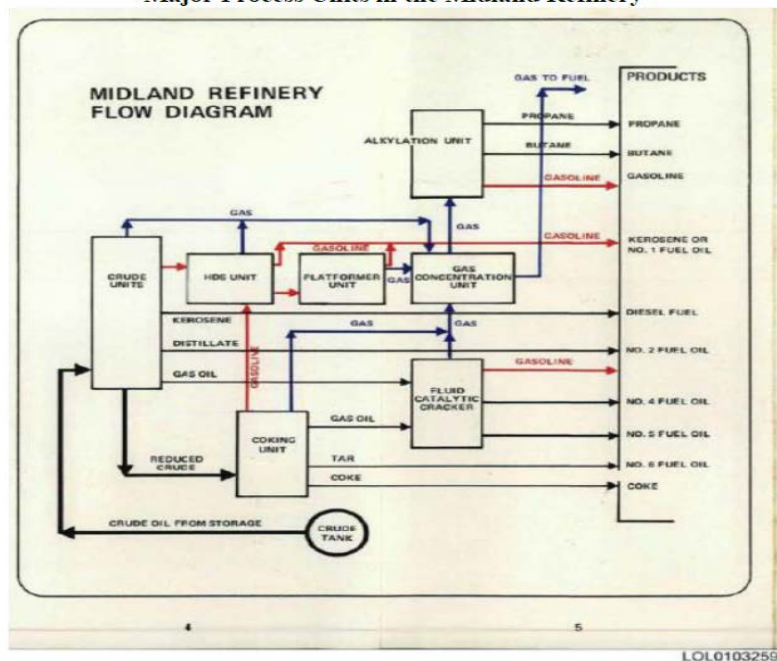
The Defendants’ accusation that Mr. Cohen relied on “vague” deposition testimony is a challenge to the weight and sufficiency of Mr. Cohen’s opinions, not their admissibility. *Cf.* Def. Mot. at 16. So is their charge that 83 year-old Glen Wright’s hand-circled “bone pile” area on an 8 x 11 picture of one angle of the 200-acre Refinery did not perfectly align with a map of the asbestos-containing soils EPA cleaned up. *Cf. id.* at 17; *see* Ex. 21 at 5. And the Defendants’ suggestion that Mr. Cohen’s opinions are somehow deficient because they do not identify how much asbestos Midland released or the exact release locations, once again, improperly tries to shift their burden to prove their divisibility defense.³³

³³ The United States hereby withdraws Mr. Dahl’s rebuttal to Lane Opinion 3 and 5 regarding asbestos. Lane’s Opinion 3 relates solely to the emergency removal action

2. Dr. Kittrell considered the wastes Midland actually generated and disposed at the Refinery.

Despite Defendants’ representations to the contrary, Dr. Kittrell considered and opined about actual wastes generated and disposed of at the Refinery. *Cf.* Def. Kittrell Mot. at 14. Indeed, his opinions are firmly based on the Refinery’s *actual* operations, as evidenced by the old refinery records and sworn testimony of several former refinery employees upon which he relied. *See, generally*, Kittrell Report (Dkt. 132-1) at Appendix 3 (“Documents Considered”). For example, *Figure 1* of Dr. Kittrell’s report is a “Midland Refinery Flow Diagram” which depicts the Refinery’s actual process flow:

Figure 1
Major Process Units in the Midland Refinery²



(ERA), and as the Defendants are aware, the United States is not seeking the costs of the ERA from them. Any testimony by Lane about the ERA is, therefore, now irrelevant. Lane's Opinion 5 is that the U.S. 30(b)(6) witness used unscientific "supposition." The United States cannot rely on its own 30(b)(6) testimony at trial. Mr. Dahl was there testifying as to hearsay, based on his mandatory review and preparation to testify as a

See Kittrell Report (Dkt. 132-1) at 11. The Defendants misrepresent that Dr. Kittrell bases his report only “on figures and tables showing *generic* refinery process waste and waste generation.” *See* Def. Kittrell Mot. at 14 (emphasis in original).

In addition to Midland’s actual design, Dr. Kittrell used textbook illustrations of refinery processes to explain his opinions and educate the reader about how basic petroleum refining processes work. These types of textbooks or articles are allowed under Fed. R. Evid. 803(18). *See, e.g., Shultz v. Rice*, 809 F.2d 643, 647 (10th Cir. 1986) (noting that Rule 803(18), an exception to the hearsay rule, “allows admission of statements from learned treatises relied upon by an expert witness”). And throughout his report, Dr. Kittrell notes that his figures come from textbooks or articles and are simplified process flow diagrams included to assist the reader. *See, e.g., Kittrell Report* (Dkt. 132-1) at 13 (Figure 2). Dr. Kittrell also adds red boxes showing the actual waste streams generated by the Refinery’s processes. *See, e.g., id.* at 30 (Figure 8 “Process Flow Diagram of a Typical Delayed Coker”). He is specific about where those wastes go, when they leave the process unit, and where they are generated along their path through the Midland Refinery. *See, e.g., id.* at 21 (Figure 5).

The Court need only compare two documents to see that Dr. Kittrell’s opinions about Midland’s hazardous waste disposals are well-connected to Midland’s operations. Dr. Kittrell’s report provides a listing of the Refinery’s hazardous wastes. *See Kittrell Report* (Dkt. 132-1) at 90 (Table 12). And Table 12 includes many of the same

30(b)(6) witness. Lane’s Opinions 3 and 5 are thus irrelevant and so we withdraw Dahl’s rebuttal to those opinions.

hazardous wastes named in the supporting application for the Refinery's RCRA hazardous waste permit:

Table 12
Description of RCRA Wastes Associated with Petroleum Processing²²⁹

RCRA Code	Description of RCRA Waste
K048	Dissolved Air Flotation Float
K049	Slop Oil Emulsion Solids
K050	Heat Exchanger Sludge
K051	API Separator Sludge
K052	Leaded Gasoline Tank Bottoms
K169	Crude Tank Sediment
K170	Clarified Slurry Tank Sediment
K171	Spent Hydrofining Catalyst
K172	Spent Hydrotreating Catalyst
F037	Sludge Generated from the Gravitational Separation of Oil/Water/Solids during the storage or treatment of process wastewaters and oil cooling wastewaters from petroleum refineries
F038	Sludge and/or Float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries.

List of Annual Hazardous Waste Quantities in Refinery RCRA Permit Application³⁴

EPA I.D. NUMBER (enter from page 1)										FOR OFFICIAL USE ONLY									
W 0 K 0 8 2 4 7 1 9 8 8										W DUP 2 DUP									
IV. DESCRIPTION OF HAZARDOUS WASTES (continued)										D. PROCESSES									
A. EPA HAZARD. WASTE NO. (enter code)		B. ESTIMATED ANNUAL QUANTITY OF WASTE		C. UNIT OF MEASURE (enter code)		1. PROCESS CODES (enter)				2. PROCESS DESCRIPTION (if a code is not entered in D(1))									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	K	0	4	8						G	D	8	1	T	0	4			Dissolved air flotation
2	K	0	4	9						P	D	8	1	T	0	4			Slop oil emulsion solids
3	K	0	5	0						P	D	8	1	T	0	4			Heat exchanger bundle cleaning sludge
4	K	0	5	1						P	D	8	1	T	0	4			A.P.I. separator sludge
5	K	0	5	2						P	D	8	1	T	0	4			Tank bottoms (leaded)
6	K	0	8	7						P	D	8	1	T	0	4			Decanter tank tar sludge-coking

³⁴ Ex. 22, Hudson Refinery RCRA Permit Application. While this permit application is from 1985, these same source-specific wastes were generated when Midland owned and operated the same process units at the same Refinery.

The Defendants nevertheless try to invent a “disjunction” between Midland’s Refinery and the “typical” refinery Dr. Kittrell includes as additional illustration for his report. For example, the Defendants distort Dr. Kittrell’s deposition testimony about the wastes generated by the Refinery’s desalter in an attempt to broadly discredit his opinions. Dr. Kittrell’s report describes how the crude oil desalting process works – at the Midland Refinery and others. *See Kittrell Report (Dkt. 132-1)* at 15-18. He states that his Figure 3 is a “process flow diagram of a typical desalter,” and he immediately follows that sentence with an explanation that the very next figure, Figure 4, is “[a] photograph of the desalter used at the Midland refinery.” *See id.* at 16. Dr. Kittrell then provides specific details about how Midland’s desalter operated, including that “a high potential electric field with 12,000-35,000 volts was applied to the mixture in the tank” in order to “force the aqueous and organic phase to settle more rapidly, decreasing the size required for the desalter.” *See id.* at 15 (explaining that “[t]his was the process used by Midland at Cushing”).³⁵

The Defendants also claim that Dr. Kittrell makes the “same error” with Figure 5 in his report – the distillation column. *See Def. Kittrell Mot.* at 16. Dr. Kittrell admitted in his deposition that there was an error in the underlying generic figure. And he explained that the distillation column diagram did not precisely represent the Midland Refinery’s distillation column. An error in a single diagram, however, is the type of issue

³⁵ Dr. Kittrell’s report relies on a contemporaneous Refinery analysis (the 1974 William Brothers Waste Control Process Water Survey) describing how effluent from Midland’s “electrical desalters” resulted in the discharge of waste directly to the coke pond. *See Kittrell Report (Dkt. 132-1)* at 15 n.13.

which should be handled by cross-examination at trial. *See, e.g., ConocoPhillips Co.*, 2019 WL 9698525, at *3; *see also Daubert*, 509 U.S. at 594 (emphasizing that the *Daubert* inquiry is a “flexible one”). It does not justify excluding entire opinions of Dr. Kittrell.

There is no disjunction. The Defendants cherry-pick snippets of deposition testimony to weave a false narrative. If the Defendants disagree with Dr. Kittrell’s opinions, or the facts underlying his opinions, they can address it through cross-examination and presentation of contrary evidence. *See Daubert*, 509 U.S. at 596.

3. Mr. Dahl correctly notes that RCRA listed wastes are no longer identifiable as such, and are now merely hazardous substances.

The Defendants argue that Mr. Dahl’s discussion is a “looking glass theory” because Mr. Dahl cannot specifically identify where and when listed hazardous wastes were disposed of. But, as Mr. Dahl explains, “[t]he exact locations of such disposal are not known, and unknowable at this point in time.” Dahl Rebuttal Report (Dkt. 133-1) at 29. “Given these unknowns regarding the locations and amounts of disposal over time at the Site, EPA’s investigations were of necessity designed to determine the overall nature and extent of contamination.” *Id.*

There is no surprise here: Midland disposed of listed wastes at various places and various times, and 40 years later the EPA arrived to find various hazardous substances at the Site. The EPA had no way to trace back (or fingerprint) where, for example, the lead in the dirt came from. *See, e.g., Ex. 10* at 7 (quantities and locations of API separator sludge disposals are “impossible to ascertain”). But the EPA is also not required to do so.

The evidence establishes that listed hazardous wastes (*e.g.*, tank bottoms) were disposed at the Site in the past. For example, benzo(a)anthracene and benzo(a)pyrene, among other hazardous constituents, are components of tank bottoms. No one should expect that tank bottoms disposed of on the ground in 1950 would still be sitting in a neat little pile readily identifiable as tank bottoms in 2000. Conditions change over time, which is precisely why Congress segregated the EPA's authority to *respond* to a *release* under CERCLA Section 104 from the liability criterion about *disposal* under CERCLA Section 107. EPA found benzo(a)anthracene and benzo(a)pyrene hazardous substances at the Site, and the agency proceeded to clean those hazardous substances up.

This passage in the Dahl Motion is telling:

EPA has already 'applied' its collective experience to the facts and formed the conclusion that Land O'Lakes is liable. This Court will decide in this lawsuit whether that conclusion is correct. In order to be helpful to the trier of fact, one might expect Dahl to elucidate this process, explain it, or demonstrate how his EPA experience, was or would be, applied.

Def. Dahl Mot. at 9. The Defendants are focused on liability, again setting up the strawman argument that Dahl needs to explain how the EPA's response actions can be tied to a specific disposal event. But Dahl is actually discussing EPA's response actions, not Midland's disposals.

Similarly, the Defendants assert that "[t]he fact that no one ever found the waste supposedly disposed of everywhere on the site is the single most telling piece of evidence that there was no listed waste." Def. Dahl Mot. at 14. Yet again, they conflate what the EPA found this century (hazardous substances) with what Midland disposed of last century (listed wastes).

E. The United States’ experts opine about *contamination* which contributed to the Non-Time Critical Removal Action, not the costs of that cleanup.

Dr. Kittrell’s and Mr. Cohen’s opinions are relevant to the Non-Time Critical Removal Action³⁶ the EPA performed at the Site between 1999 and 2001 because their opinions speak to the Defendants’ CERCLA liability in general. Both experts opine about activities conducted by Midland that resulted in contamination at the Site that the EPA responded to.

As a matter of law, even if these opinions offer only one “piece of the puzzle” to prove whether the Defendants are *prima facie* liable under CERCLA, the opinions are admissible. *See* Fed. R. Evid. 401 and 402. The Defendants confuse the threshold question of whether an expert’s evidence is admissible under *Daubert* with the separate question of whether it is sufficient to prove a particular point.³⁷ Neither Rule 702 nor *Daubert* require that an expert’s testimony prove an element of the offering party’s case for it to be relevant and admissible. That is the rule in this district. *See, e.g., APS of Oklahoma*, 2018 WL 4608505, at *4 and *8. That is the rule in other courts as well.³⁸

³⁶ The United States is no longer seeking to recover the costs of the Emergency Removal Action from the Defendants.

³⁷ *See Cook v. Rockwell Intl. Corp.*, 580 F.Supp.2d 1071, 1083-84 (D. Colo. 2006) *citing In re Joint E. & S. Dists. Asbestos Litig.*, 52 F.3d 1124, 1132 (2nd Cir.1995) (distinguishing between inquiry into admissibility of expert evidence and “a sufficiency inquiry, which asks whether the collective weight of a litigant’s evidence is adequate to present a jury question.”).

³⁸ *See, e.g., Adams v. Ameritech Servs., Inc.*, 231 F.3d 414, 425 (7th Cir. 2000) (“First, the question before us is not whether the reports proffered by the plaintiffs prove the entire case; it is whether they were prepared in a reliable and statistically sound way”); *City of Tuscaloosa v. Harcros Chems., Inc.*, 158 F.3d 548, 564–65 (11th Cir. 1998)

In addition, as explained above, the Defendants’ efforts to require that the United States prove a causal link between Midland’s wastes and any EPA response costs (whether incurred during the CERCLA removal actions or remedial action) are inconsistent with binding Tenth Circuit precedent. *See Tosco*, 216 F.3d at 891; *see also supra* at 9-11.

As a matter of fact, once again, the expert *Land O’Lakes* hired to secure insurance money for the Site told a very different story about the connection the Defendants now want this Court to believe is lacking:

The activities conducted by Midland during its operating period from 1943 to 1977, while lawful and consistent with accepted practice at that time, were shown to have contributed to the overall environmental condition at the Site at the time the Emergency Removal Action and the Non-Time Critical Removal Action were conducted.

See Ex. 1, Forrester Rebuttal Report at 12 (.pdf 18). The Defendants’ motions fail to bring this information – which specifically links Midland’s activities to the EPA’s removal action costs – to the Court’s attention. Indeed, the Defendants tell this Court the exact opposite.

And like they do with CERCLA’s standard of proof, the Defendants distort the subject matter Mr. Cohen and Dr. Kittrell were retained to analyze. Mr. Cohen and Dr. Kittrell were not retained to opine about the response costs the United States incurred cleaning up the Hudson Refinery Superfund Site – a point Mr. Cohen was candid about

(expert’s study and testimony “need not prove plaintiffs’ case by themselves; they must merely constitute one piece of the puzzle that the plaintiffs endeavor to assemble before the jury”); *Ambrosini v. Labarraque*, 101 F.3d 129, 135 (D.C. Cir. 1996) (“fitness prong

during his deposition, despite the Defendants’ insinuations to the contrary. *See* Ex. 3 to Def. Cohen Mot. (Cohen Depo.) (Dkt. 131-14) at 190:25-191:2 (“I’m not offering any opinions regarding the cost amounts”); *cf.* Def. Cohen Mot. at 5. Dr. Kittrell’s deposition testimony about the Non-Time Critical Removal Action similarly and simply confirmed that he is not a “cost expert” and that, consequently, he is not testifying about the costs of the Non-Time Critical Removal Action or the specific steps of the cleanup work the EPA performed during the Non-Time Critical Removal Action. *Cf.* Def. Kittrell Mot. at 6-7.

Mr. Cohen and Dr. Kittrell were *actually* retained to analyze different aspects of the wastes Midland disposed of at the Refinery and the resulting contamination. *See* Cohen Report (Dkt. 131-1) at 1 (explaining that Mr. Cohen was retained “to provide expert opinions regarding release and migration of chemical contaminants including CERCLA “hazardous substances”, hydrogeologic conditions, and related environmental issues at the Hudson Refinery Superfund Site”); Kittrell Report (Dkt. 132-1) at 7 (explaining that Dr. Kittrell was retained “to utilize [his] education, experience and training in historical petroleum refining technology, petroleum products, and related site contamination to offer an expert opinion on the likely origin of contamination at the Midland Refinery”). The United States is offering other fact witnesses and has retained other experts – who prepared reports and the Defendants deposed – to handle cost issues. *See* United States’ Mot. for Partial Summ. J. at v (listing the United States’ fact and expert response cost witnesses) (Dkt. 130). Suggesting otherwise misrepresents the

of the Daubert admissibility analysis primarily concerns relevance” and “not whether the testimony satisfies the plaintiffs’ [burden of proof]”).

nature of Dr. Kittrell's and Mr. Cohen's opinions. *Cf.* Def. Cohen Mot. at 4 and Def. Kittrell Mot. at 5-6 (faulting Dr. Kittrell for offering "no opinion on the [removal action] costs").

Accordingly, at trial, the United States will offer the relevant, reliable, and admissible opinions set forth in Dr. Kittrell's, Mr. Cohen's, and Mr. Dahl's expert reports and rebuttal reports (including Dr. Kittrell's amended rebuttal report). The United States may use their opinions to support its findings of fact and conclusions of law, including findings of fact and conclusions of law regarding the Non-Time Critical Removal Action.

F. The Defendants retained 12 experts, but accuse the United States of a "needless presentation of cumulative evidence"

There is nothing improper about Mr. Cohen, Dr. Kittrell, and Mr. Dahl relying on each other's particular areas of expertise and the information in their respective reports to help develop their own opinions. *Cf.* Def. Cohen Mot. at 18; Def. Kittrell Mot. at 21-22; Def. Dahl Mot. at 3. "An expert may base an opinion on facts or data in the case that the expert has been made aware of." Fed. R. Evid. 703; *see also Smithwick*, 447 F. Supp. 3d at 1245 (denying motion to exclude an expert who relied on the work of another expert, and explaining that Fed. R. Evid. 703 "allow[s] an expert...to base an opinion upon 'facts or data in the case that the expert has been made aware of'"). Fed. R. Evid. 703 is "designed to broaden the basis for expert opinions...and to bring the judicial practice into line with the practice of the experts themselves when not in court." *See* Fed. R. Evid. 703, Advisory Committee Notes to 1972 Proposed Rules. Rule 703 recognizes the reality that experts, like Mr. Cohen, Dr. Kittrell, and Mr. Dahl frequently and properly rely on

sources of information beyond what they have personally observed. *See id.* (using the example of a treating physician to explain that “a physician in his own practice bases his diagnosis on information from numerous sources and of considerable variety, including...reports and opinions from nurses, technicians and other doctors”).

Here, all three experts have different areas of expertise, all of which are relevant to understanding how the decades of Midland’s operations and waste disposal practices contaminated the Site. For example, Dr. Kittrell is a Ph.D. chemical engineer with more than 30 years of experience in refinery operations, chemical analysis, and petroleum refining industry standards. *See Kittrell Report* (Dkt. 132-1) at 7-8 (highlighting his experience in “petroleum processing and petroleum product properties, particularly including the chemistry of petroleum, petroleum products, and petroleum processing as it relates to the chemistry of environmental contamination and the forensic implications thereof”); *see also id.* at Appendix 1 (Curriculum Vitae). Mr. Cohen is a professional hydrogeologist, with years of experience assessing environmental contamination, migration, and remediation. *See Cohen Report* (Dkt. 131-1) at ¶ 4 (page 1) and Appendix A (Resume of Robert M. Cohen). Mr. Cohen has indeed acquired knowledge about refinery operations and waste disposal practices through “experience [and] education.” *See Fed. R. Evid.* 702; *see also* Resume of Robert M. Cohen, Appendix A to Cohen Report (Dkt. 131-3) at 3-4 (.pdf page 12-13) (discussing his work with another Oklahoma refinery and other sites with petroleum contamination). But Mr. Cohen also relies on Dr. Kittrell’s more detailed knowledge about refinery processes, waste generation, and management practices “as additional support” for his opinions about the sources of

wastes that Midland generated. *See* Cohen Report (Dkt. 131-1) at ¶ 23 (page 6). Fed. R. Evid. 703 allows that.³⁹

The *Valley View Angus Ranch* case the Defendants rely upon is not on point. *See* Def. Cohen Mot. at 18. That case excluded expert testimony under Fed. R. of Evid. 403 because the opinions of one expert were “almost identical” to those of another. *See Valley View Angus Ranch*, 2008 WL 2329169, at *10 (striking expert testimony, but only to the extent it “duplicates” the report of another expert). That is not the case here.

Briefly reviewing the Tables of Contents to Mr. Cohen’s and Dr. Kittrell’s reports shows that they focus on different topics and offer different opinions. *Compare* Cohen Report (Dkt. 131-1) at i *with* Kittrell Report (Dkt. 132-1) at 2-3. Yes, both sets of opinions are about the same refinery, for obvious reasons. But each expert brings his own particular expertise to analyze distinct questions about the sources and types of contamination at the Refinery, such as the arsenic and lead contamination. Their opinions are not almost identical or duplicates, as was the case in *Valley View Angus Ranch*.

In sum, the Defendants fail to make the showing required under Fed. R. Evid. 403. There is no danger caused by any potential overlap between Mr. Cohen’s and Dr. Kittrell’s reports, let alone a danger that “substantially outweigh[s]” the probative value of their opinions. *See* Fed. R. Evid. 403. That is the standard Fed. R. Evid. 403 requires,

³⁹ It seems like the Defendants would have challenged Mr. Cohen’s opinions if he had *not* sought out additional information about refinery operations and waste management practices. *See* Def. Cohen Mot. at 8 (accusing Mr. Cohen of making a “bald assertion of expertise in refinery operations”).

and the Defendants cannot meet it. The Defendants are therefore wrong to argue that the Court should exercise its discretion under Fed. R. Evid. 403 to block portions of Mr. Cohen's or Dr. Kittrell's testimony, especially in a bench trial like this case. *See, e.g., Smithwick*, 447 F. Supp. 3d at 1245.

As a final note, the Defendants are accusing the United States of needlessly presenting cumulative evidence in the face of their fleet of a dozen retained experts. *See* Ex. 23, Defendants' June 17, 2019 Initial Rule 26(a)(2) Disclosures. Six of the Defendants' twelve experts offer opinions about or discuss the facts of (to use only one example) the retroactivity of RCRA hazardous waste listing or the scope of the RCRA corrective action at the Refinery:

- *See* Ex. 3, Fortuna Report:
 - Opinion 4 (pages 19-24) (discussing the RCRA cleanup) and Opinion 6 (pages 27-30) (discussing retroactivity of RCRA listed wastes).
- *See* Ex. 24, June 14, 2019 Expert Report of Robert M. Zoch, Jr., P.E.:
 - Opinions 3-7 (pages 57-64) (discussing the RCRA cleanup) and Opinion 8 (pages 64-67) (discussing retroactivity of RCRA listed wastes).
- *See* Ex. 14, Delaney Report:
 - Opinions 4 and 4(c) (pages 26 and 29) (discussing the RCRA cleanup) and Opinion E.1 (pages 43-44) (discussing retroactivity of RCRA listed wastes and the RCRA cleanup).
- *See* Ex. 15, Saba Report:
 - Opinions 2.2.2, 2.2.3, 2.3.2.1, 2.3.2.4 (pages 11-15, 21-22, and 28) (discussing the RCRA cleanup).

- *See* Ex. 25, June 14, 2019 Expert Report of Jay Vandeven:
 - Section 5 (pages 28-29, ¶¶s 44-47) (discussing the RCRA cleanup).
- *See* June 14, 2019 Expert Report of William Hathaway:⁴⁰
 - Opinion 1(b) (page 9, ¶¶s 27-28) (discussing the RCRA cleanup).

Undeterred by the fact that they are fielding more than a basketball team's worth of experts on RCRA issues alone, the Defendants still accuse the United States of needlessly presenting cumulative evidence.

V. CONCLUSION

Based on these reasons, the United States respectfully requests that the Court deny the Defendants' motions to exclude the opinions of Dr. James Kittrell, Robert Cohen, and Thomas Dahl (Dkt. 131-133).

Respectfully submitted,

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⁴⁰ *See* Att. D. to Not. of Lodging of Def. Expert Report Citations in Support of U.S. Mot. in Limine (Dkt. 124-1) (Oct. 16, 2020).